



MASTERVOICE
UNIFIED COMMUNICATION

OPEN

Unified Communication
and Collaboration Platform



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> Bringing value to businesses

Business-friendly experience and innovation

Our goal at MasterVoice is to make your company's business more productive.

How?

We offer the best solutions in the sector aimed at optimising communication processes: on the one hand maximising the potential of the technologies already in use in your company, and on the other implementing them with innovative solutions that create benefits in terms of productivity, operational efficiency, and cost rationalisation.



A SINGLE PARTNER

for hassle-free unified communication



AN INTEGRATED SYSTEM

to improve company communication



TAILOR-MADE EFFICIENCY

for 100% personalised superior performance



FAST ACTIVATION TIMES

to get main offices and branches up and running



ECONOMICAL AND CLEAR PRICING

of operating costs and immediate response



TRAINING AND TECHNICAL ASSISTANCE

to always work alongside the client to provide ongoing customer support

> Many tools, one system

Integrated technologies for company communications

A system that integrates **all voice, video and data communications technologies in a single suite** to optimise company workflow, making them accessible via desktop and laptop computers, smartphones, and tablets.



ADVANCED MOBILITY

Make and receive calls from mobile devices without generating telephone traffic



OPERATOR PANEL

Simplify the operator's job with an online telephone console



VIDEO CONFERENCING

Quickly set up web meetings, video conferences and presentations



UCC WEB CLIENT

Instant messaging and audio-visual calls directly from your browser



API

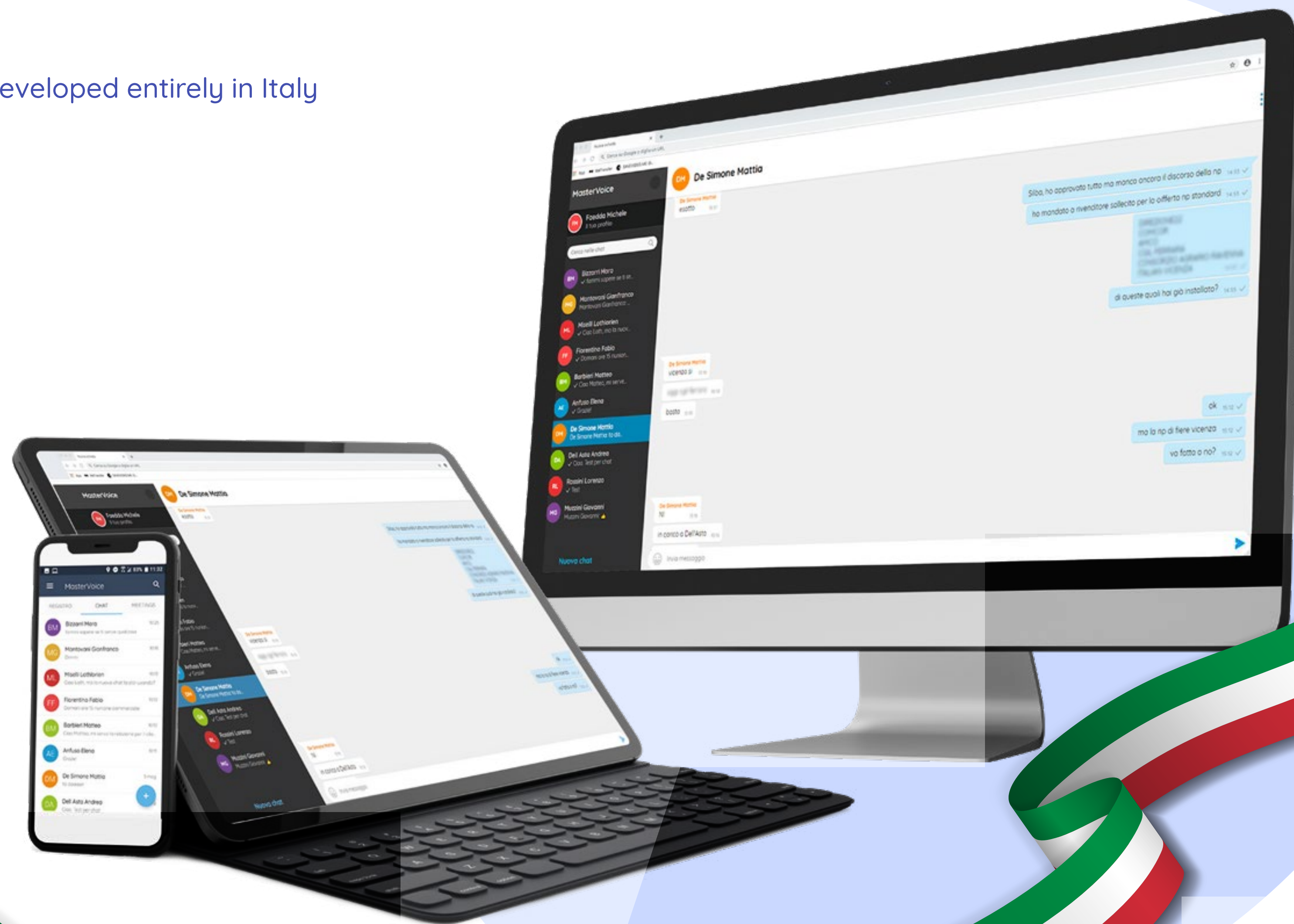
Integrate external software systems such as ERP and CRM



CALL CENTERS

Manage a call centre for sales or customer tech support

MasterVoice Open software was developed entirely in Italy
by MasterTraining s.r.l.



2 System features

MasterVoice Open is a **complete software suite** featuring **VoIP PBX, Unified Communication and Team Collaboration.**

This system takes maximum advantage of its location on the Cloud, and is made accessible to end users through the web client and native apps for Apple iOS and Google Android.



> VoIP PBX at Enterprise Level

MasterVoice offers all the services of a traditional or high-tech phone console on VoIP (Voice over Internet protocol) technology in SIP

The following are some of the most widely-used services:

- Assisted and unassisted call transfer
- Unconditional call forwarding in case of busy line or no answer to other internal, external, group or voice mailbox
- Routing incoming calls on direct dialling
- Display of caller's number on incoming calls and name recognition if caller appears in the contact list
- Call parking
- Direct call-pickup
- Automatic return of transferred call in the event of a busy line or no answer
- Call-back reservation in the event of a busy line or no answer
- Automatic Answering Machine (IVR) with decision tree and multi-level feature
- Calendar and message management during opening hours, closing hours and holidays
- Manual and/or automatic night service
- Unlimited voicemail boxes and messages via email
- Customisable hold music via audio files (wav, mp3)
- Recording of voicemail messages directly through your phone
- Centralised address book and short numbers (unlimited)
- Classes of service
- Classes of restriction/block on outgoing calls
- Breakdown of external calls by cost centres
- Multi-presence on more than one terminal: a user can be simultaneously present on more than one telephone terminal while keeping the same internal number
- Caller switch: intelligent routing of incoming calls
- Log of incoming and outgoing calls available in real-time

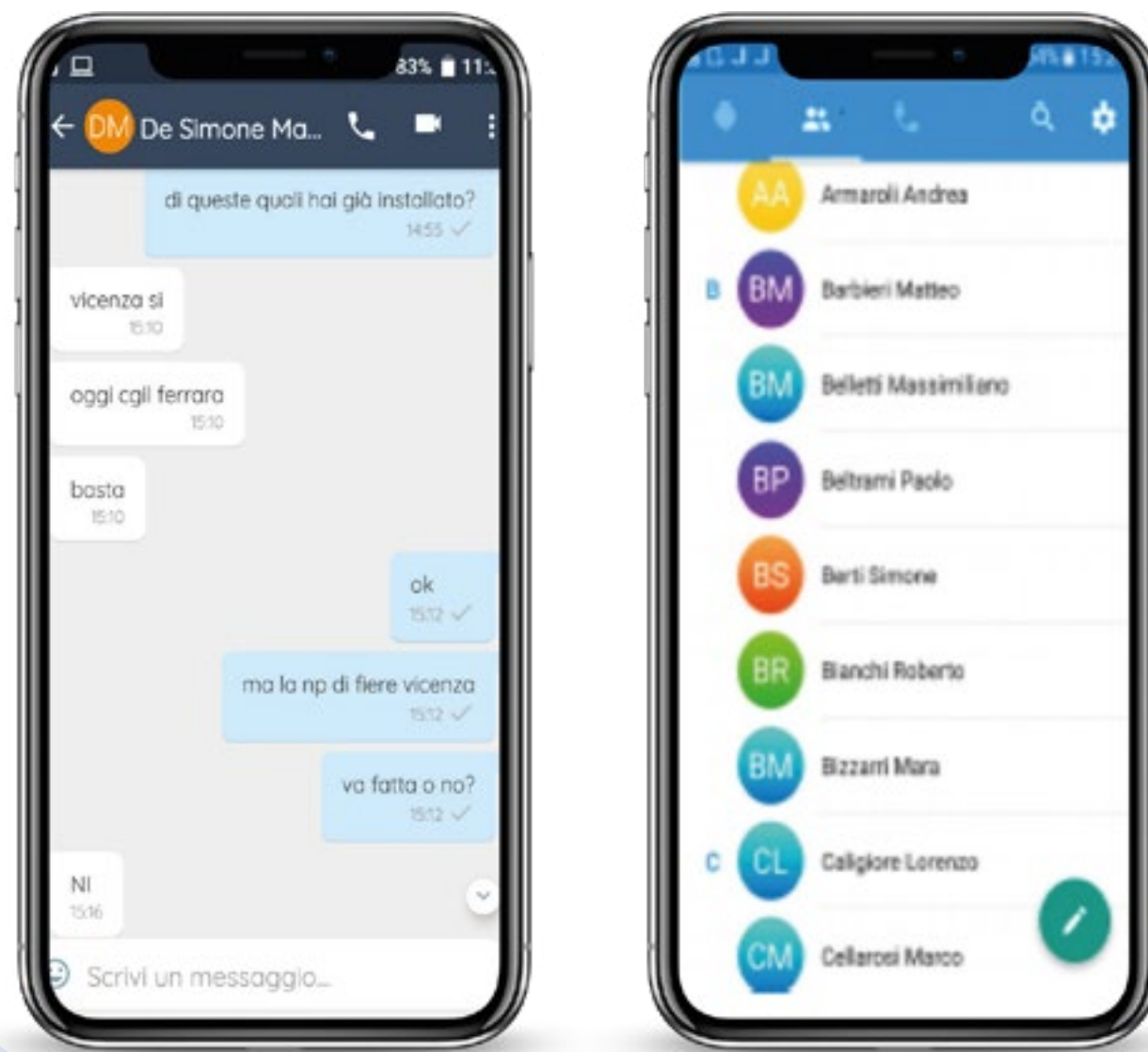


> Mobile App

The **MasterVoice Open** client is also available for **Google Android** and **Apple iOS**.

MasterVoice for Android and iOS is a smartphone app that allows you to **make and receive calls to and from coworkers or landline numbers just like you were calling from your company extension**; since the call originates from the MasterVoice server, it is possible to call over WiFi or LTE/4G without generating standard telephone traffic on your SIM card.

The app was designed to have a minimal impact on battery life, and to always wake the smartphone even from stand-by and black screen mode.



The MasterVoice app also allows you to:

- > Make **video calls** to other users.
- > Participate in **video conferences**.
- > Organise **web meetings** by inviting participants from inside and outside the company.
- > Send and receive **text messages** (Chat and Instant Messaging).
- > Send and receive **voice messages and images**.
- > Activate “**do not disturb**” mode without having to turn off the application or logout.

> MasterVoice UCC Web Client

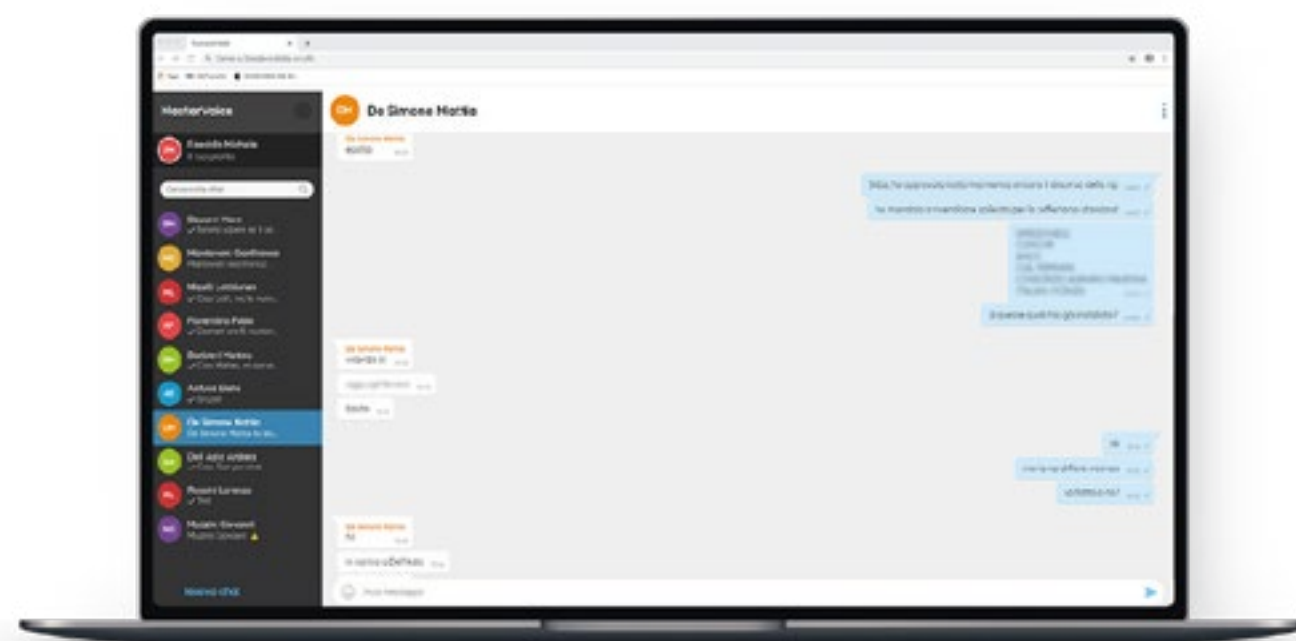
The **MasterVoice UCC Web Client** uses the **most innovative internet technologies** available, including **webRTC** and **progressive web app**, to provide the user with a fluid and highly accessible experience.

MasterVoice UCC is a complete Unified Communication and Collaboration client, which can be used via a web page on desktop or laptop computers. A user needs only a standard web browser to be able to use MasterVoice.

Moreover, the advantage of having a web client is that you do not have to install any particular program, and the latest version updates automatically without any action needed by the user or IT manager.

The MasterVoice UCC web client allows you to:

- > Make calls to and receive calls from users and geographic numbers **consulting the company directory**. Using headphones and a USB or Bluetooth microphone, **the web client becomes a genuine web phone**.
- > Make **video calls** to other users.
- > **Participate in video conferences and share your screen** from a PC or app.
- > **Organize web meetings** by inviting **participants from inside and outside the company**.
- > Send and receive text messages (**chat and instant messaging**).
- > Send and receive **voice messages and images**.
- > Display a **call button on your website** to offer your customers free phone contact.



> Videoconferencing and Team Collaboration

MasterMeet Professional: the web conferencing and webinar tool fully integrated into the MasterVoice Open suite.

MasterMeet Professional is a web conferencing, chat and content sharing system suitable for:

- meetings
- remote working
- training courses
- webinars

It can be used on any platform (PC, smartphone or tablet) without the need to install any software.

Thanks to its SFU (Selective Forwarding Unit) technology, MasterVoice offers an innovative video conferencing and online meeting system that allows you to independently manage all audio/video flows during a video meeting.

Key Features

- > **Participation in audio and/or video up to Full HD (1080p)** directly from web browser.
- > **Text chat room** visible to all participants.
- > **Private text chats** between participants.
- > **PC screen sharing**, or sharing of an application or browser tab.
- > **Presentation of slides**, images or documents, that can be made downloadable during the meeting.
- > **Shared collaborative blackboard.**
- > **Shared notes** for collaboratively compiling minutes or notes.
- > **Timed breakout rooms** for workshops or exercises divided into subgroups. The moderator can switch from one room to another and interact with the individual groups. When time runs out, all the participants will automatically return to the main room.
- > **Synchronised play/stop/forward of videos** (YouTube, Vimeo, etc.) **for all participants.**
- > **Real-time polls and surveys** with publication of results.

In MasterMeet Pro, participants are profiled according to the following roles:



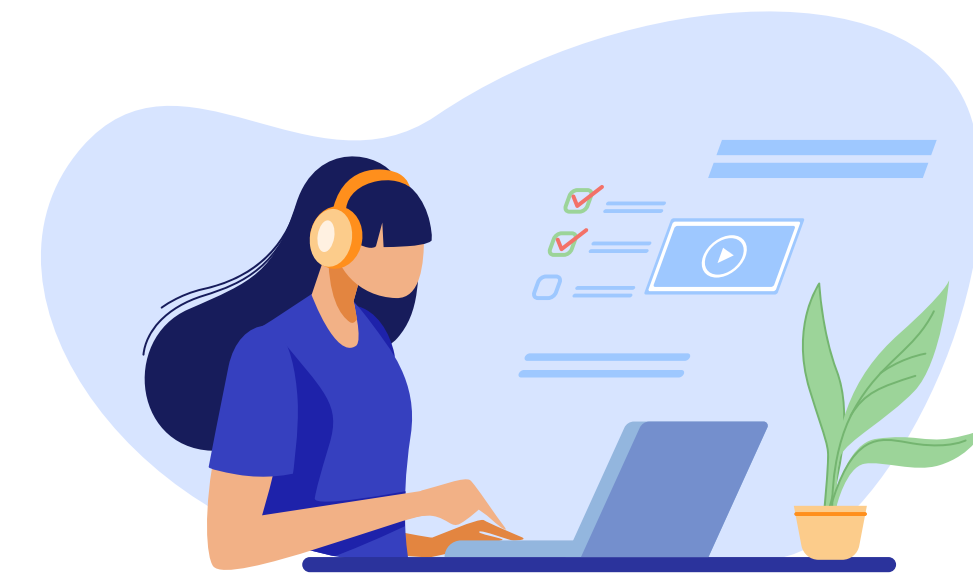
SPECTATOR

- May enter the meeting with audio and/or video, according to the permissions granted by the moderator
- Can **download shared documents** if allowed by the presenter
- Can **write messages in room chat or privately to the presenter**
- Can collaborate on writing **shared notes**
- Can autonomously decide what to display (slides and/or webcams of the other users) and what to put in full screen
- Can use the **“raise hand”** command to ask the moderator for permission to speak
- Can select the interface language (Italian, English, etc.)



MODERATOR

- Can **open/close the meeting**
- Can **mute one or more participants** to reduce noise in the room
- Can **block/remove one or more participants**
- Can **give/transfer the role of moderator** to other participants
- Can **invite guests from outside the company** by simply sending a link (URL)



PRESENTER

- Can **share documents, images and presentations**
- Can **display their desktop**, a PC application or a specific web browser tab
- Can **create polls**
- Can **synchronise the play/stop/forward of YouTube videos for all participants**
- Can **create a poll and publish the results** during the meeting

The advantages of using MasterMeet Pro

- > **Smooth audio and video** even for users with low bandwidth.
- > **No software to install.**
- > **Multilingual interface support.** This system was developed in Italy, so **its primary language is Italian.**
- > **Moderator role with complete control of participants**, at the start and during the meeting.
- > **Guaranteed simultaneity on dedicated**, non-public server.
- > **Client-only platform** with high level of **security.**
- > Since the Client is fully software-based, **it can also be used in meeting rooms by connecting audio, video, USB and/or Bluetooth devices.**



> Online Operator Panel

The **Operator Panel** is intended for operators who handle **heavy telephone traffic**

For users who carry out **intensive telephone activity**, such as call centre operators, switchboard operators or management secretaries, MasterVoice offers a web-based operator panel capable of performing **advanced operations quickly and easily**.

The MasterVoice Operator Panel allows you to:

- > Make calls with **just one click**.
- > **Transfer a call with a simple drag-and-drop** of the mouse.
- > View **call waiting queue**.
- > **Manually select a caller in the queue**, even if they are not next in line to be served, for example to respond to an important customer or an urgent call
- > **Find users with quick search**, and **customize the list of your most frequent contacts**, ordering them according to your needs



> Solutions for Call Centres

With **MasterVoice** you can **create inbound call centre services** and customer service response centres, or manage a group of switchboard operators. Even if the operators are remote and separated geographically, they can still be managed in a single logistical group to make call distribution simpler and more uniform.

Key Features

- > **Queues and ACD (Automatic Call Distribution):** MasterVoice will place incoming calls in a FIFO queue and is able to distribute them to operators according to your chosen strategy: round robin, strictly sequential or parallel (ring-all)
- > **Each queue parameter is fully configurable:** the welcome message, waiting message and music, action if all operators are busy, action if no operator is logged-in, action on timeout, and service behaviour at night or on public holidays
- > **Manual pickup of queued calls:** operators can see the queued calls from the graphical interface and may decide to answer a specific one, overriding the strict order of arrival of the calls



- > **Web operator panel with “drag and drop” call transfers**, display of individual caller waiting times, log on and log off to individual queues, visual and acoustic signalling of exceeded call time limits and long waiting time to increase efficiency level and KPIs, automatic or manual call-back of calls lost in the queue, caller recognition and opening of the customer’s CRM card directly from the call
- > **Ability to answer queued calls from the mobile app to manage on-call services on the go**
- > **Audio recording** of conversations
- > **Detailed statistics on waiting times**, calls answered and missed calls at individual service level
- > **Comparative performance statistics of call-centre operators**: average and maximum conversation times, percentage of calls answered and missed
- > **Reports exportable in .csv format** for post-processing



> API for integration with third-party software

MasterVoice enables **integration with external software systems** such as ERP and CRM to perform actions or receive notifications of telephone events.

MasterVoice enables integration with external software systems such as **ERP** and **CRM** to perform actions or receive notifications of telephone events. This is done by using **Web Services and API REST HTTPS**.

A few examples:

- > **API “Call”** to start a phone call by passing the number to call and the calling number as variables.
- > **“Call Terminated” Notification Service** to notify external software that a call has ended by sending data on the start time, call duration, calling number and called number to external software.



> Customization of software to project

Thanks to its **development team entirely located in Italy**, MasterVoice can work with the client to design customisations of the software system or new features not present in the system

A few examples:

- > Integration with **company management software**.
- > Creation of **custom reports**.
- > **Data exports** and overnight scheduling in FTP.
- > **New REST API** and notification services.
- > **Changes to the graphical user interface**.



> Admin Portal

MasterVoice can be **managed fully online** via the *Admin Portal*.

The **users can be profiled** to have **different permissions, access or views** on the various configuration areas of the system: for example, within the company, the IT manager, the personnel manager, and a general employee will have different needs and different permissions.

Examples of services that can be managed by the Admin Portal:

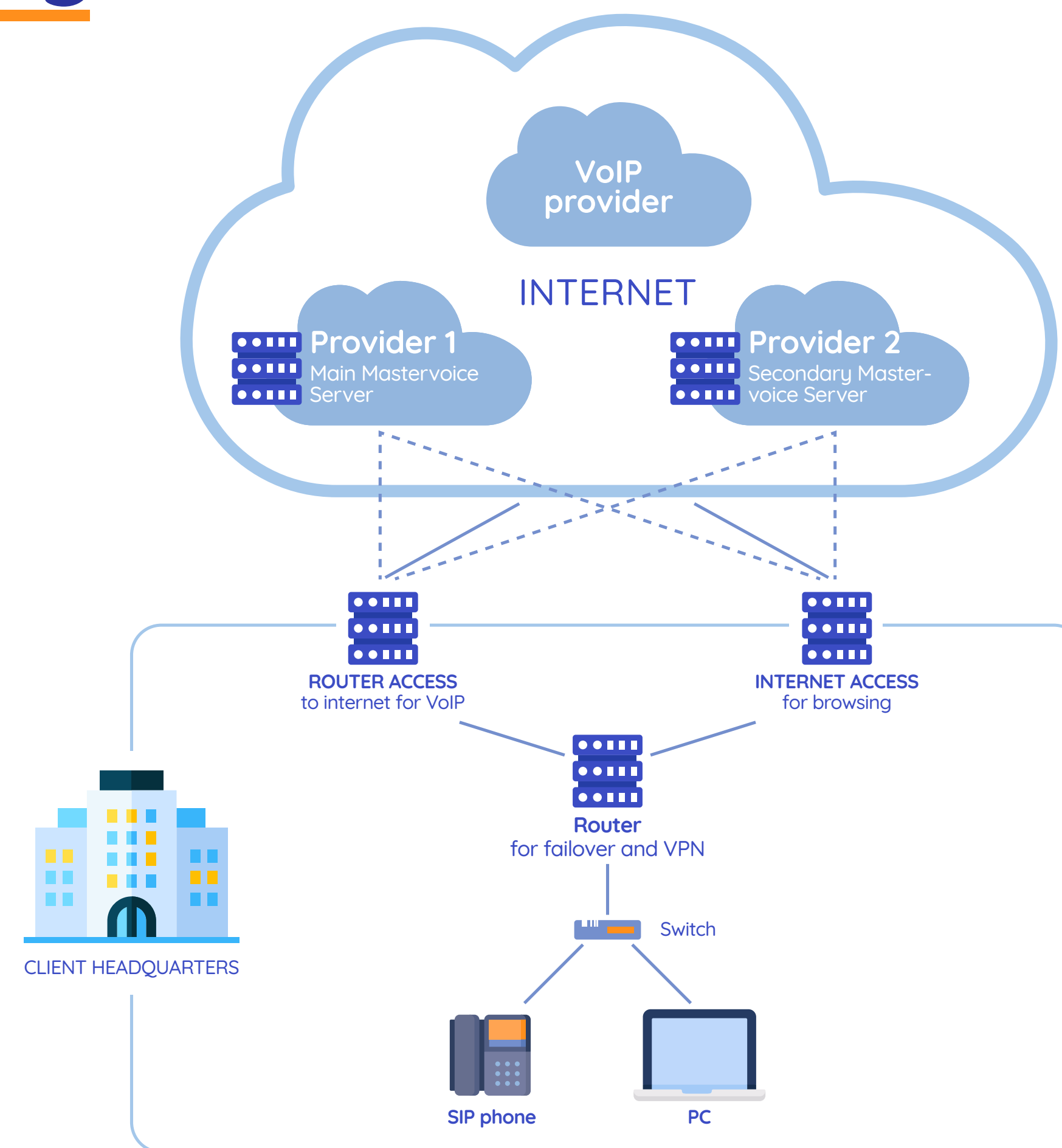
- > Access and manage the **calendar of opening and closing times**.
- > Set **filters on outgoing calls**.
- > Create and modify **phone extensions**.
- > Configure the **menu tree and automatic responder selection menus (IVR)**.
- > Insert **audio files for queues** and **hold music**.
- > Structure the **incoming call workflow**.
- > Access **statistics** and **call log**.



> Business Continuity & Security

To ensure high levels of service, the Client's **network infrastructure will be validated and enhanced to avoid single points of failure (SPoF)** and will have the following features at each Client's location:

- > **An internet access circuit dedicated to VoIP and UCC, with symmetric guaranteed minimum bandwidth to meet the company's needs.**
For VoIP services, for each user, **a guaranteed symmetric bandwidth of at least 25 Kbps dedicated to VoIP is needed.** Since it is difficult to guarantee this bandwidth with QoS or traffic shaping systems, it is preferable to dedicate this to internet access. MasterVoice is able to help the Client identify the most suitable circuits in the area by providing a package deal and delivery of such circuits if required.
- > **A backup internet access circuit from a different provider to the main one, dedicated to VoIP.**
This can also be the company's web browsing circuit. It is preferable to have it on a different broadcast medium. For example, if the main circuit is fibre-optic, it is worthwhile having the backup circuit on radio link to reduce the incidence of ground events such as flooding, or the physical interruptions of circuits due to accidental cutting. **It is also possible to make use of the 4G mobile data network by inserting one or more SIM cards in the failover router.**
- > **A failover router**, provided by MasterVoice, can automatically detect when the main Internet access circuit is unavailable and reroute VoIP traffic to the secondary circuit. In addition, if required, **it is also possible to failover the secondary circuit to the main one.** A cold backup copy can be included with the router on the Customer's premises, in case of failure of the main router.



> Security of MasterVoice web client and mobile apps

MasterVoice mobile apps and MasterVoice web clients do not require a VPN, instead using secure protocols such as HTTPS, Secure web socket and JWT authentication, and require users to set strong passwords at least 12 characters long.

It is important to note that use of the MasterVoice mobile app in 4G, for example, can serve as an effective failover device if no internet access is available on the Client's premises.

In fact, **thanks to the 4G/LTE network, users can make and receive calls as if the app were a physical extension of MasterVoice**. Hacking and cyberattack attempts are identified and blocked on the server side using techniques such as Fail2ban, creating and updating a blacklist of IP addresses banned by the MasterVoice system.

- > **A VPN to the MasterVoice server in the Cloud:** the failover router also has the role of establishing a VPN (**Virtual Private Network**), with OpenVPN-over-UDP protocol, to the MasterVoice server in the Cloud. Thus VoIP traffic and UCC on the SIP protocol are completely protected from hacking and intrusion. **Thanks to its integrated firewall, the MasterVoice server is also protected from SIP attacks because it is only open to VoIP VPN addresses.** The VPN also ensures that there are no single or dual NAT configurations between the MasterVoice server and a telephone terminal that can normally generate one-way voice.



3 MasterVoice Open: deployment of the solution

The current telephone system in use on the Client's premises can be completely replaced by the **VoIP MasterVoice Open** platform, an SIP-standard system highly interoperable with other terminals following that standard.



The complete MasterVoice solution can be activated in two different modes:

- > With a **server in the Cloud**
- > With a **virtual server on the Client's platform**

These solutions are outlined below.

Each location will be equipped with a specific router in order to ensure the failover of VoIP connectivity to a second Internet connection and the creation of a VPN dedicated to VoIP.

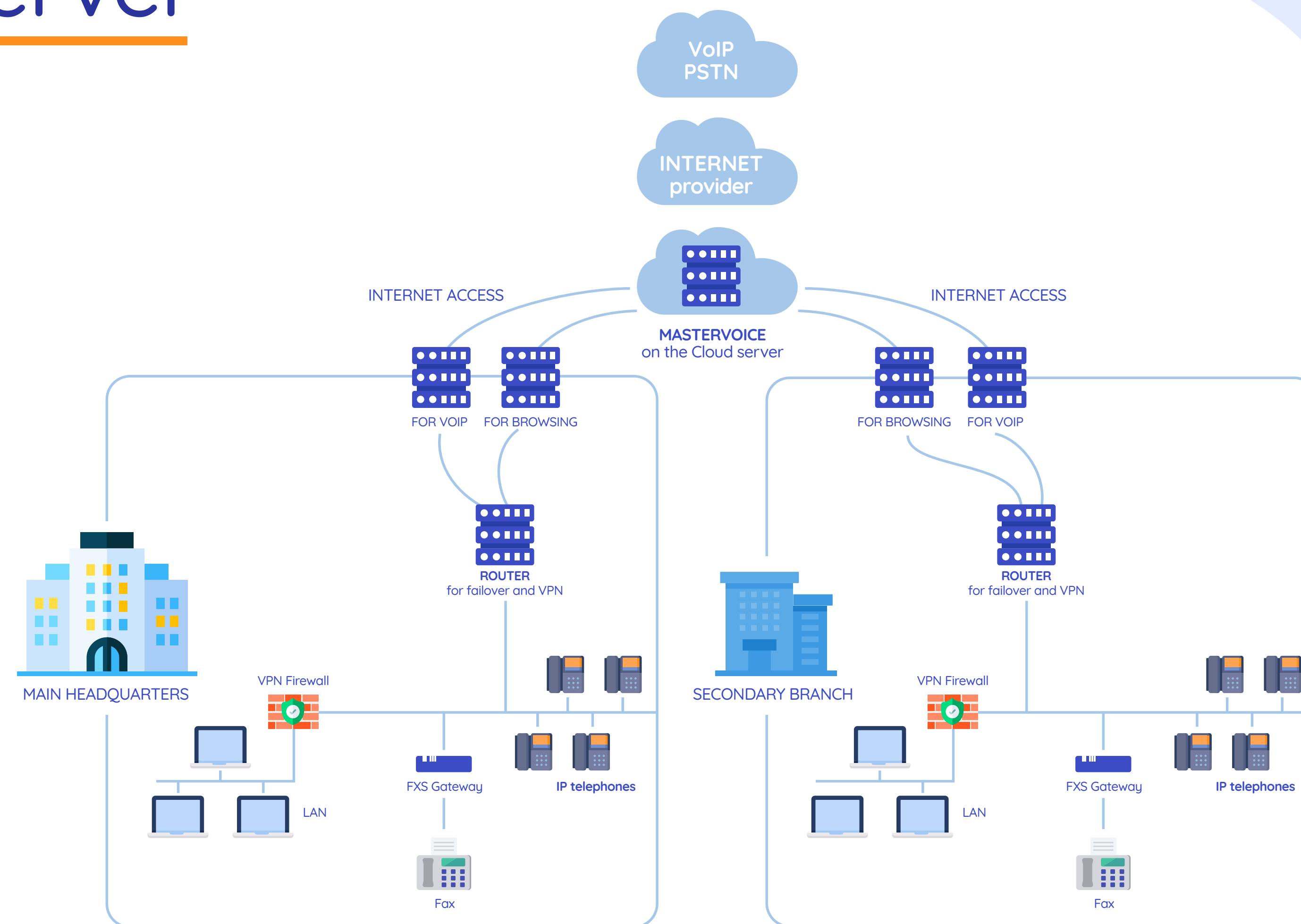


> Open on a Cloud server

In this scenario, the MasterVoice Open software resides on a server-farm in the Cloud.

The MasterVoice server is the Client's only VoIP server: all telephone terminals in the various company locations connect to it via a VoIP-dedicated VPN.

See diagram

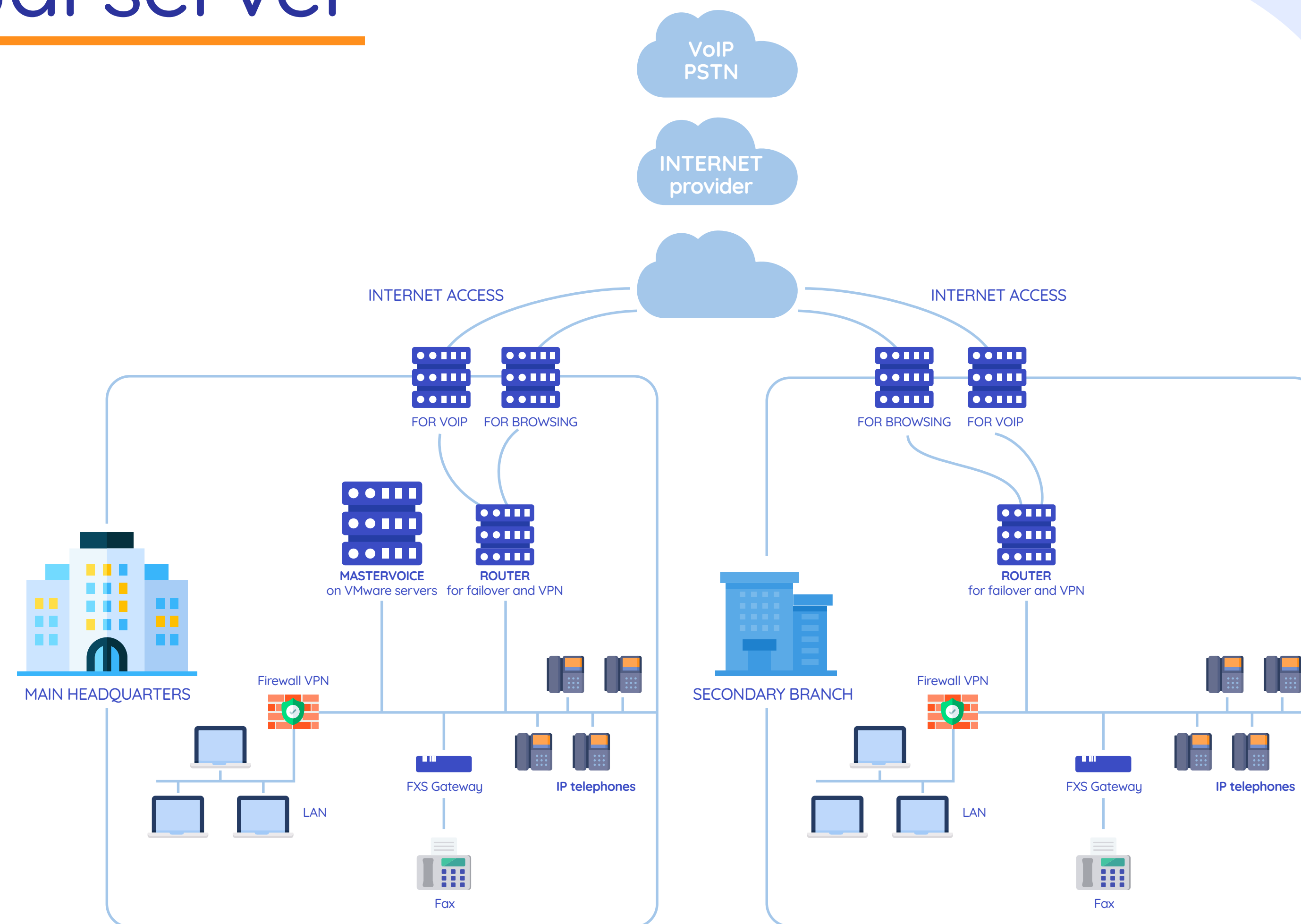


> On the client's virtual server

In this case, the MasterVoice Open software is installed directly on the Client's VMware infrastructure.

The MasterVoice server thus becomes the only VoIP server for all company locations: all telephone terminals in the various branches connect to it via a VoIP-dedicated VPN.

See diagram



4 System components

The MasterVoice system is composed of the following types of physical components that interconnect and communicate with each other over the IP network:

- > Server MasterVoice
- > Gateway SIP ISDN and FXS
- > IP Phones
- > DECT IP coverage



MASTERVOICE SERVER

The **heart of the system**.

Can be delivered on a physical server, a virtual server, or in the Cloud.

SIP/ISDN GATEWAY

SIP Gateways make the client's ISDN lines accessible to the client by way of the MasterVoice server, which can route calls to and from extensions over IP.

Since the SIP Gateways are IP network elements, they can also be located physically far away from the MasterVoice server: this allows them to adapt to different company premises in terms of thermal conditions and skills (CED room, switchboard room).

SIP FXS GATEWAY

Using SIP FXS gateways, **it is also possible to connect pre-existing analogue terminals to the MasterVoice system**, such as fax machines, BCA telephones, etc.

As with SIP ISDN gateways, **it is sufficient that these devices can be reached by the MasterVoice server via IP**.

IP TELEPHONES

These are the hardware telephone terminals in use.

MasterVoice supports SIP phones from the world's leading vendors (Yealink, Snom, Cisco, Polycom, etc.) and integrates autoprovisioning **to automatically configure the phones quickly and easily**.

DECT COVERAGE

MasterVoice provides DECT standard systems for radio coverage.

Each DECT cell transports speech via SIP protocol over an IP network; therefore, these cells can take advantage of the existing data network without the need for dedicated wiring.



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